WP07-JRA3, Cumulative radiation effects on electronics - Overview of WP7

Vincent GIRONES (University of Montpellier)
RADNEXT 2nd Annual Meeting – 9-10 May 2023
https://indico.cern.ch/e/radnext-2023

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WP7 members

- Université de Montpellier
- ISAE-SUPAERO
- Université de Liège
- Université Jean Monnet Saint-Etienne
- ATRON
- Airbus Defence & Space

Jérôme Boch WPL

Vincent Goiffon Deputy WPL

WP7 structure

The main objective is to understand the physical mechanisms behind the damage caused by TID and TNID and to propose test methodologies adapted to the use of electronic components and systems in radiative environment.

Vincent GIRONES

Maxence GUENIN

<u>Two main technical tasks are studied:</u>

- **Task 7.1: Coordination and communication**

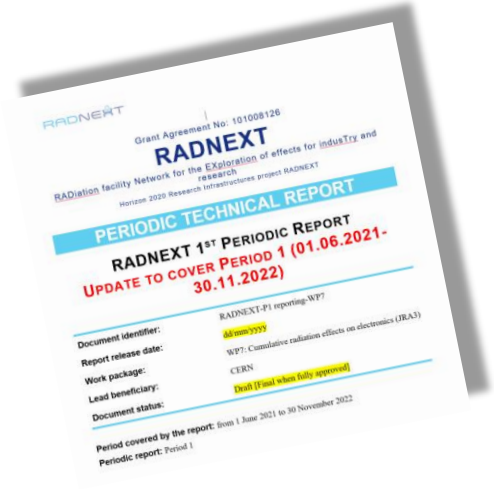
- **Task 7.2: The effects of ionizing dose (TID = Total Ionizing Dose)**
  This task began in month 1
  PhD recruitment from October 2021 (36 months) at UM

- **Task 7.3: The effects of non-ionizing dose (TNID = Total Non-Ionizing Dose)**
  This task is just beginning
  Postdoc recruitment from October 2022 (12 months) at ISAE-SUPAERO

WP7 milestones, deliverables and reports

MS24	X-ray ATRON Facility modelling	2023/05/31
MS25	Comparison of X-ray / cobalt experimental data	2024/05/31
MS30	Beginning of TNID irradiation campaign	2024/05/31

D1	Comparison of X-ray / cobalt experimental data	2024/05/31
D2	Published list of tested components against cumulative effects	2024/05/31
D3	Final TID results and guidelines for dose testing with X-ray facilities	2025/03/31
D4	Final TID results and guidelines for dose testing with X-ray facilities	2025/03/31


RADNEXT

Grant Agreement No: 101008126

RADNEXT

RADiation facility Network for the EXploration of effects for indusTry and research

Horizon 2020 Research Infrastructures project RADNEXT

PERIODIC TECHNICAL REPORT

RADNEXT 1ST PERIODIC REPORT

UPDATE TO COVER PERIOD 1 (01.06.2021-30.11.2022)

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Report release date: dd-mm-YYYY

Work package: WP7: Cumulative radiation effects on electronics (JRA3)

Lead beneficiary: CERN

Document status: Draft [Final when fully approved]

Period covered by the report: from 1 June 2021 to 30 November 2022

Periodic report: Period 1

The report on the first period was written in December 2022

Thanks for your attention!

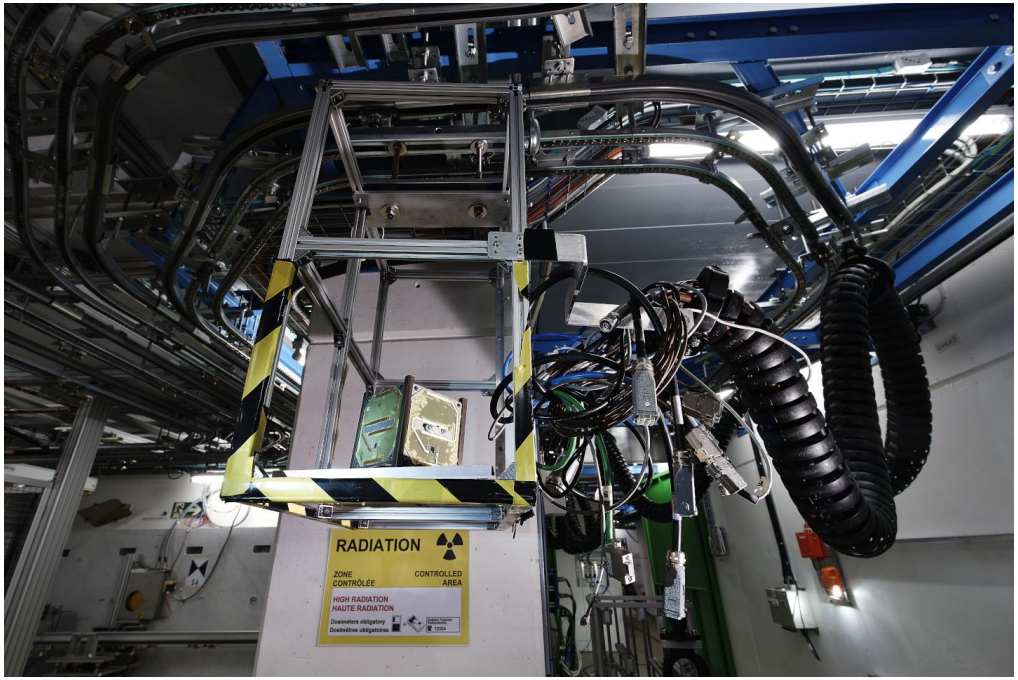

Image Source: CERN